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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,629	05/31/2001	Yoshiyuki Asayama	209252US0	7671

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OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC
FOURTH FLOOR
1755 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VA 22202

EXAMINER

NORDMEYER, PATRICIA L

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 09/11/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/867,629

Applicant(s)

ASAYAMA ET AL.

Examiner

Patricia L. Nordmeyer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 7, 10 and 15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim has to be written to select one of the claims from the group. See MPEP § 608.01(n). Accordingly, the claims 7, 10 and 15 not been further treated on the merits.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 7, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "B represents the area of loaded part of the test piece in the determination of the compression strength" in claim 1 is unclear, which renders the claim vague and indefinite.

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From the claim language, it seems that B is a measurement taken on the test piece with which a comparison cannot be made since no value is given.

The phrase “by JIS-P 8126” in claim 1 is unclear, which renders the claim vague and indefinite. It is unclear from the claim language and specification what steps are involved in the testing procedure of “JIS-P 8126”.

The phrase “by JIS-P 8113” in claim 1 is unclear, which renders the claim vague and indefinite. It is unclear from the claim language and specification what steps are involved in the testing procedure of “JIS-P 8113”.

The word “satisfying” in claim 1 is unclear, which renders the claim vague and indefinite. It is unclear from the claim language what is encompassed in the claim by the word “satisfying”. For the purpose of examination, “satisfying” is replaced by “comprising.”

The phrase “at least one surface thereof” in claim 7 is unclear, which renders the claim vague and indefinite. It is unclear from the claim language if only one surface is coated with the crack preventing layer or if only one surface has the elongation at break of at least 5%.

The phrase “by the drawing” in claim 15 is unclear, which renders the claim vague and indefinite. The claim language fails to point out the subject matter which is being claimed by the

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invention since there is more than one drawing and no specific details are being referred to in the drawing.

The word "satisfies" in claim 16 is unclear, which renders the claim vague and indefinite. It is unclear from the claim language what is encompassed in the claim by the word "satisfies". For the purpose of examination, "satisfies" is replaced by "comprises."

The formula in claim 16 is unclear, which renders the claim vague and indefinite. It is unclear from the claim language what 0.15 represents, and what is the importance of the relationship between the area and the height of the formed article.

5. Claim 1 (3) recites the limitation "test piece" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

Clarification/correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

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(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 3 – 6 and 10 - 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sandstrom et al. (USPN 6,379,497).

Sandstrom et al. discloses a multi-layer paperboard (Column 51, line 8) with a high density of layer of 0.7 g/cm^3 and a low density layer of 0.53 g/cm^3 and lower (Column 51, lines 35 – 37). The overall weight of the board is 100 to 520 g/cm^3 (Column 5, lines 45 to 50) with a density lower than 0.7 g/cm^3 depending on the size and weight of the individual layers (Column 5, line 55 to Column 6, line 49). The fiber used in the formed containers (Column 7, lines 47 – 51) is from pulping processes such as mechanical pulping, thermomechanical pulping and chemi-thermomechanical pulping (Column 11, lines 5 – 10). A synthetic resin is coated on both sides of the container, which may include a pigment (Column 11, lines 54 – 57 and Column 12, lines 31 - 34). Suitable polymers for the process include polyethylene, polypropylene, polyethylene terephthalate, methyl cellulose, carboxymethyl cellulose acetate copolymer (Column 12, lines 34 – 45) and polyvinyl alcohol (Column 18, lines 13 – 26). The pigments are selected from a variety of materials including clay, talc, calcium carbonate (Column 18, lines 30 – 35) and kaolin (Column 18, line 6). Note that the articles of Sandstrom et al. would be within the realm of calculation by the claimed formula (see Figures 16A – 25B).

8. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Sjostrom (USPN 6,221,212).

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Sjostrom discloses a paperboard article with a tensile strength between 7.0 and 9.0 kNm/g (Column 4, lines 54 – 57) and a bending strength (elongation) between 29.7 to 54.3 Nm⁶/kg³ (Columns 7 and 8, Table 2) and a z-strength (compression) of 108 to 182 J/m² (Columns 7 and 8, Table 2). Since the article contains the strengths as indicated by the applicant, it is inherent that the article deforms at least 10% in the thickness direction.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2 and 7 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sjostrom in view of Mukoyoshi et al. (USPN 6,187,430).

Sjostrom discloses the claimed invention above except for the molding base paper further comprising a crack preventing layer having an elongation at break of at least 5%, the crack preventing layer having an elongation of at least 6% and having a basis of weight of 50 to 150g/m².

Mukoyoshi et al. teaches a mechanical pulp (Column 4, lines 28 – 29) in a sheet that has a coating of a polymer resin (Column 6, lines 30 – 33) with a basis weight of 2 to 100g/m² (Column 7, lines 27 – 30) for the purpose of giving the sheet the ability to absorb inks and give it

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good mechanical strength so it is not easily damaged. Since the coating is on the selected material, has the selected base weight and contains the selected resins (Column 5, lines 54 – 68), it is inherent that the coating has an elongation at break of at least 5 or 6%.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the coating layer of a basis weight of 2 to 100g/m² in order to giving the sheet the ability to absorb inks and give it good mechanical strength so it is not easily damaged as taught by Mukoyoshi et al.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,306,493 to Brownfield, U.S. Patent No. 6,022,448 to Eriksson et al., U.S. Patent No. 6,133,170 to Suenaga et al. and U.S. Patent No. 6,251,995 to Hesse et al. are cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (703) 306-5480. The examiner can normally be reached on Mon.-Thurs. from 7:00 -4:30 p.m. & alternate Fri..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Patricia L. Nordmeyer
Examiner
Art Unit 1772

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pln

September 6, 2002

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1912

9/8/02